DOCUMENT RESUME

ED 414 869 HE 030 868

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TITLE Dimensions of Retention: Findings from Quantitative and Qualitative Approaches.
PUB DATE 1997-00-00
NOTE 18p.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Academic Persistence; *College Freshmen; Grade Point Average; Higher Education; *Institutional Research; *Predictor Variables; *Qualitative Research; Research Methodology; School Holding Power; Self Evaluation (Individuals); State Universities; *Statistical Analysis; Teacher Student Relationship; Urban Universities
IDENTIFIERS *Boise State University ID

ABSTRACT

Quantitative and qualitative methods were used to study retention and first-semester grade point average at Boise State University (Idaho), a metropolitan university with many commuter students. The quantitative portion of the study was based on questionnaires completed by 235 freshmen; the qualitative part was based on interviews with a different, random group of 25 freshmen. It was found that first-term grade point average was the best predictor of persistence, and both approaches confirmed the importance of faculty contact to early academic success. However, the qualitative study noted that students most in need of faculty contact often used poor grades as a reason not to talk to professors. Both measures also showed how self-reporting can lack accuracy: In the quantitative study, students with higher self-assessments of academic and psychological readiness for college were less likely to persist; in the qualitative study, students also did not always make accurate judgments about academic performance and chances for continuing. The quantitative study found no effects for age or having children or being employed, but the qualitative study showed some effects for nontraditional students. It was concluded that diverse student bodies require a variety of approaches to best understand retention. (Contains nine references). (Author/SW)

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DIMENSIONS OF RETENTION:

FINDINGS FROM QUANTITATIVE AND QUALITATIVE APPROACHES

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DIMENSIONS OF RETENTION:

FINDINGS FROM QUANTITATIVE AND QUALITATIVE APPROACHES

Abstract

This study explored the use of quantitative and qualitative methods in studying retention and first semester grade point average at a metropolitan university with a large commuter population. Despite a variety of quantitative measures, first term grade point average was found to be the best predictor of re-enrollment a second semester as well as one year later. Both studies confirmed the importance of faculty contact to early academic success with the qualitative study adding the detail that students most in need of conversations with faculty about their performance use their poor grades as a reason not to talk to their professors. Both studies also showed how self-report measures can lack accuracy. In the quantitative study, students with higher self-assessments of academic and psychological readiness for college were less likely to persist. In the qualitative study, students also did not always make accurate judgments about their academic performance and chances for continuing. The lack of findings in the quantitative study for the effects of age, child care, or work were shown in the qualitative study to play out differently for different non-traditional students. It was concluded that a diverse student body requires a diversity of studies and approaches to best understand retention.

DIMENSIONS OF RETENTION:

FINDINGS FROM QUANTITATIVE AND QUALITATIVE APPROACHES

Much has been written on the subject of persistence and degree-attainment of college students. Indeed, Pascarella and Terenzini (1991, p. 387) found that "the volume of literature directly or indirectly addressing this area of inquiry during the last twenty years is extensive to the point of being unmanageable." We are now all well aware that we need to look at the decision to leave college as one that includes the variety of characteristics that students bring with them to college as well as the social and academic integration they experience at the institution (see Tinto, 1987 for fuller development of his classic model).

As the face of the entering student continues to shift towards older, part-time, minority, and commuter groups, we have been urged to conduct studies that are specific to our institutions. Reasons include the fact that most research has been conducted on traditional student populations—which are becoming increasingly scarce at many institutions--and because each institution offers its own milieu and particular "take" on the college life.

But what is the best way to conduct a study? Is the purpose to identify factors or variables that could be used as part of an "early warning" system to intervene with students likely to leave? If so, a quantitative study is probably the best approach. This emphasis on variables, however, leaves us without a picture of the whole student. In addition, with the strong interdependencies among many variables, it can become confusing to select a "best set" for predicting persistence. Is the purpose to get to know the student experience as a whole and how college and home experiences relate to decisions to continue or withdraw? If so, a qualitative study may be the way to go. But qualitative studies are time-consuming and messy. And because such studies are not based on numbers, many people suspect their conclusions.

Perhaps the best approach is to see what can be learned from each. Where commonalties are found, we can have increased confidence in our findings and conclusions. Where differences appear lie fertile areas for further research. This was the approach taken at Boise State University, a metropolitan university of about 15,000 students, most of whom are commuters, and a one-year persistence rate of about 55%.

The Quantitative Approach

Quantitative Methodology

There are many things we know about our students at the time of enrollment: age, gender, ethnicity, residence, proposed major, financial aid, and academic preparation as evidenced by high school grade point average and ACT or SAT scores. There are also many things we do NOT know about our students. How ready are they for college? Do they have the family support and personal motivation to continue when things get rough? What are the other commitments on their time? Do they have jobs or children? How do they perceive their first-semester experience?

To fill in the blanks in these other areas not traditionally captured as part of the admissions process, questionnaires were given to a subset of students enrolled in a freshman orientation course and/or a general psychology course at both the beginning and the end of the Fall 1995 semester. The final set of entry variables included: gender, age, ethnicity, intention to complete a degree at Boise State University, amount of time they estimated they needed to meet their educational goals, number of hours employed outside the home, responsibilities for children or aging parents, on-campus living arrangements, admissions index scores as a combination of standardized test scores and high school GPA, whether they had decided on a major, local resident, and financial aid given in grants, scholarships, and loans. In addition, responses to 18 items that students rated as helping or hindering their success were factor analyzed, and factor scores were obtained on three factors named academic readiness, resource management, and psychological readiness.

First semester experience variables were mainly gathered through the end-of-the-term survey. Variables included: perceived impact on academic and career development, general perceptions of the University, number of services used, satisfaction with services, number of conversations with faculty, number of conversations with other students, number of times they worked with other students on projects outside of class, number of times they met as a member of a study group, the number of times they felt lost or alone on campus, the number of times they experienced rudeness on campus, and number of credits taken their first semester. Other variables included whether the students had enrolled in either a cluster program (where the same group of students took their courses together) or in an orientation or study skills course. In addition, students were asked an open-ended question at the end of the semester about what they had learned their first semester. Responses were coded on three dimensions—

intrinsic/extrinsic, personal/academic, and positive/negative—and included in the analysis. First-term GPA served as the final first-semester-experience variable as well as an outcome variable.

Through regression analysis, we sought to predict three outcome variables: first-semester GPA, re-enrollment for a second (spring) semester, and re-enrollment for a third (fall) semester. First-term GPA was predicted using the stepwise regression approach with a criterion to enter and stay in the analysis of .15. To predict re-enrollment, logistic regression analysis was used. Using the recommendations of Hosmer and Lemeshow (1989), univariate analyses were first conducted using either a chi-square or t-test statistic that related each variable to re-enrollment. Those which had a probability level of .25 or less were kept and submitted to a logistic regression using the stepwise procedure. Again, the probability level to enter or stay in the stepwise regression was .15. Variables which were selected in this process were then included in the final regression equation; probabilities of less than .10 were considered statistically significant.

Quantitative Findings

The 235 students included in the study were fairly reflective of the freshman class as a whole. About 60% were female and 13% were members of a minority group. Most (75%) planned to get a degree at Boise State University, while 14% were undecided about their major. About 40% lived in residence halls, and 45% had addresses indicating they lived locally before coming to the University. About 60% were working at least part-time, and over half received financial aid. One in eight (12%) cared for children or aging parents.

In general, this group was somewhat more successful than the freshman class as a whole. About 68% had first term GPAs above 2.0 compared to 65% for the entire class. Persistence rates were also higher (91% vs. 83% for spring, 65.5% vs. 54% for the following fall). Prior research (Belcheir, 1997) had indicated that younger and better prepared students tended to enroll in the Freshman Orientation course where the surveys were given and that those enrolled in these courses were more likely to persist.

Findings Regarding First-term GPA: When predicting first-term grade point average (GPA), results of the stepwise regression showed that the admissions index was the best predictor, accounting for 20% of the variability in GPA. In second place was the number of times students indicated they had held conversations with faculty members, with students with higher GPAs holding more conversations. Other variables which positively related to GPA were local residence, perceived impact on development, positive comments about learning,

participating in the cluster program, and intention to get a degree at BSU. A negative relationship was found between GPA and number of times the student felt lost and alone at the University. The findings are summarized in Table 1 below. Taken as a whole, they indicate that students who arrived with good academic skills, became academically engaged their first semester, and had positive perceptions of their first semester had higher grade point averages. It should be noted, however, that the set of variables accounted for only 38% of the variability in GPA.

Table 1

Prediction of First Term Grade Point Average

Using Stepwise Regression

Step	Variable	Partial R^2	Model R^2	F-Ratio	Prob>F
1	Admissions Index	.2057	.2057	51.78	0.0001
2	Number of conversations with faculty	.0529	.2585	14.19	0.0002
3	Permanent local resident	.0373	.2959	10.50	0.0014
4	Impact on development first semester	.0282	.3241	8.22	0.0046
5	Positive comments re. learning	.0154	.3395	4.57	0.0337
6	# of times felt lost or alone on campus	.0189	.3584	5.75	0.0174
7	Part of cluster program	.0120	.3704	3.69	0.0563
8	Seeking a degree at BSU	.0075	.3779	2.33	0.1289

Predicting Re-enrollment the Next Term: To predict spring term enrollment, the number of variables was first reduced to the following 16: seeking a degree at the University, living on-campus, having a permanent local address, estimated time to degree, receiving a financial aid grant, contact with faculty, contact with other students, positive comments about what was learned first semester, first term GPA, academic readiness factor, resource management factor, age, perceived impact on development first term, general perceptions of BSU, satisfaction with services, and number of credits attempted first term. The stepwise logistic regression then selected seven of these variables for the final model: first term GPA, estimated time to degree, credits attempted first semester, factor scores on academic readiness and resource management, general perceptions of BSU, and

receiving a grant. Only three variables, however, had probabilities of less than .10 when included in the final logistic regression.

First-term grade point average (GPA) was the best predictor of re-enrollment for the following term (Wald χ^2=6.61, p=.01). Other variables which were associated with increased odds of returning were factor scores on academic readiness (χ^2=3.41, p=.06) and numbers of credits attempted (χ^2=3.34, p=.07). While more credits increased the odds of returning, the opposite was true of academic readiness factor scores where those with higher scores were less likely to return.

Predicting Re-enrollment One Year Later: The full set of predictor variables was first reduced to the following subset of 16: whether they were seeking a degree from the University, minority group membership, estimated time needed to reach educational goal, amount of time working outside the home, financial aid grant recipient, number of times met as member of a study group, number of times felt lost or alone on campus, participation in a first-term study skills course, positive comments about their first-term learning experiences, scores on the psychological readiness factor, admissions index scores, age, general perceptions of BSU, number of services used, satisfaction with services used, and first-term GPA. The stepwise logistic regression reduced this to a final set of eight variables; seven remained statistically significant at the .10 level when included in the final regression equation.

First-term grade point average was by far the best predictor of who would return the following fall term (Wald χ^2=19.91, p=.0001). Others variables which increased the odds of returning one year later were using more services (χ^2=4.33, p=.04), minority group membership (χ^2=4.97, p=.03), greater satisfaction with services used (χ^2=4.53, p=.03), and higher admissions index scores (χ^2=3.97, p=.07). Variables which were related to decreased odds of enrolling were higher ratings of psychological readiness for college (χ^2=2.98, p=.08) and more participation in study groups (χ^2=4.35, p=.04), two findings which are contrary to most published research.

Summary of Quantitative Findings

Results of this study provided confirmation of the general wisdom in some areas and rather startling findings in others. On the confirmatory side, first term GPA again was the most important predictor of returning. Using Tinto's (1987) traditional model that casts persistence decisions into a combination of effects of academic integration (e.g., academic performance) and social integration (e.g., participation in campus life), this finding

would indicate that academic integration was more important for this group of students. Though findings remain mixed, some research (e.g., Walleri & Peglow-Hoch, 1988) has indicated that for non-residential institutions, academic integration is more important in predicting persistence. Because of the nature of the student body, this study seems to confirm that finding.

When we checked to see what predicted higher GPAs, we again found the expected: academic readiness as measured by a combination of high school grade point average and test scores was the best predictor. Other measures of social integration that were important included conversations with faculty, participation in a program designed to facilitate entry to campus, and feeling lost and alone on campus. Students who were more satisfied with their first semester experiences (as measured by perceived impact on academic development and positive comments about what they learned their first semester) were also more likely to have higher GPAs; Pike (1991) concluded that satisfaction led to higher grades rather than vice versa. Two characteristics of students that were relevant to the analysis were indications to seek at degree at Boise State University and local residence. The relationship of degree-seeking and GPA can readily be interpreted as evidence of goal commitment. The local residence finding was confusing. Pascarella and Terenzini (1991) concluded from their review of the research that residence had little effect on academic achievement but was an essential part of social integration and therefore persistence.

There were differences in what variables were predictive of returning the next term versus returning the following fall. While both semesters found GPA to be a significant predictor, there were no other overlaps. In the spring term, academic readiness ratings and number of credits attempted first semester were significant predictors. For the fall term, service use and satisfaction, admissions index scores, study group participation, and psychological readiness factor scores were significant. These differences indicate that different factors are already contributing to the decision to stay or go by the second term. Studies of competing risks for withdrawing, graduating, or transferring over time have noted how risk factors have different influences at different times (e.g., Ronco, 1995).

Some of the spring and fall term findings were unexpected. It was unexpected to find, for example, that minority group members were more likely to return than their non-minority counterparts. Perhaps the fairly small minority student population and the support systems in place for most of them as members of a program (e.g.,

athletes, a program for children of migrant workers) provides a possible explanation. It was also unexpected to find that participation in study groups lowered the odds of returning. A closer inspection of the data showed that the significant effect was mainly due to the higher percentage of re-enrollees who indicated they had not participated in any study groups at all. Perhaps what we may be seeing, however, is more a reflection of the different kinds of students we're studying. As already indicated, some research indicates that for older, commuter, non-traditional students, social integration into the campus is unimportant. Perhaps it is this group of older students, motivated to complete an education, who are squeezing in solitary study time among their other responsibilities, who are persisting and causing this effect. Further data exploration would be helpful in assessing this theory.

The finding on the negative relationship between self-assessed psychological and academic readiness for college and persistence was also confusing, though in this case at least one other recent study reported a negative relationship between positive self-concept and grades for females (Ancis and Sedlacek, 1997). Perhaps unrealistic appraisals cause early problems for some students. Again, further research would be helpful.

The Qualitative Approach

The qualitative investigation takes a micro look at what happens the first year of college. This consideration of retention creates a qualitative panorama of how 25 first time freshman students develop as they meet and interact with the people, places, and organization that make up the University. Images of their expectations of college, how they personally changed during their first year of college, what things impressed them, and where stumbling blocks occurred were captured in the panorama. Variables affecting retention included in this study are age, gender, high school performance, and educational goals; academic variables including study habits and major; and environmental variables such as hours of employment and family responsibilities.

Qualitative Methodology

The Students: A list of 166 students was picked at random from the fall registration computer list of approximately 1,800 incoming, first time freshmen. A representative sample was then chosen in terms of gender, home address, age, academic preparation, and educational goals.

Students were called from this list to explain the study to them, and to ask for their cooperation. They were in turn offered one free academic credit and a $50.00 gift certificate at the Campus Bookstore to be used for

spring semester. If they agreed, they were sent a thank you letter which included a confidentiality statement, an overview of what would be required of them as students, and a journal for them to record their experiences during the study.

Gathering the Data: An objective of the qualitative interview is to allow students to tell their own story in their own terms. (McCracken, 1988, 34) The objective of this study was to encourage the student to talk without specifying the substance of the response. The broad scope of this study dictated that an outline form of questions be used. It ensured that the researcher covered the same topics with all students. It established the direction and scope of the conversations. It also helped the researcher use prompts, which maintained the right distance, and did not lead the student to answer in specific directions. It was important that the researcher was willing to take advantage of the freedom of this type of interview to pursue any opportunity that arose to explore topics not defined in the questionnaire.

During the weekly telephone conversations the students were asked to focus on one or two areas of college life that were selected ahead of time. Students were also asked for their general impressions of how things were going and if there was anything particularly bad or good that happened to them since the last visit. During the spring semester students were contacted several times to check on their progress.

The first week of interviews, the students were asked questions about BSU IN GENERAL - how they heard about BSU; their impression of the campus. They were also asked about their COLLEGE GOALS and what made them choose BSU. The next week they were asked about ADMISSIONS - the materials, the staff. The next week they were asked about the ADVISING process and the attitude of the advisor. The following week they were asked about REGISTRATION - the process, people, payment, and problems. The next conversation was about FINANCIAL AID - the process, the people, the type of aid received, and WORK - necessary or not, employer support, hours worked. The next week they were asked about their HOUSING - on or off campus, problems, friends, and ORIENTATION - attendance, productivity. Week seven they had plenty to say about PARKING - lack of, problems, bus service, night classes, and PERSONAL CHALLENGES was also covered. The following two weeks involved discussions on CLASSES - likes, dislikes, worries, sizes, expectations, performance, choices, teaching, and professors. The next conversations were about FAMILY - support, sacrifices, and time management. Week eleven covered SOCIAL GROUPS - new friends, classes, dorms, organizations,

clubs, activities. The last week of interviewing was spent discussing RESPONSIBILITY – the student's and the University's– and SUMMARY QUESTIONS related to educational goals, progress, college experience, and plans to return.

Handling the Data: The path from raw data, to observations, conclusions, and finally to application in retention programs is less than determinate in qualitative research. One value of qualitative research is that presupposed outcomes can be rearranged, added, or dropped based on data gathered. Reliability of open-ended interviews requires that each student understand the question in the same way so that answers can be grouped by categories. There was only one researcher who did all the calling and coding so all contact included the researcher. Even though the questions were open-ended, projected answers were utilized in coding the responses to questions. Tape recordings were made during the telephone conversations. Then the tapes were reviewed and notes were taken. The first analysis was done as a read and review stage by both researchers to get a feeling for the data. Some general tendencies were noted. The next step was a thorough reading and notation of common answers for all topic areas. The third step taken was entering the data on the computer, and sorting the comments into themes, by a research assistant.

Qualitative Findings

Analysis of Non-returning Students: Four students or 16% did not return in the spring. Three female non-traditional students quit going to classes very early in the semester, within one to seven weeks. Two of the women were working full time while going to school part time. One had her GED, was enrolled full time, and was not working. She was also pregnant at the beginning of the semester but did not reveal this information. Very little interview information was ever obtained from this student.

The high school GPAs of two of these women were 2.86 and 3.16 indicating adequate prior academic success. They did not feel comfortable with the large size of the institution, and they did not talk to their professors about their progress. The third woman, with the GED, did not indicate whether she had attended any classes fall semester. Their few short weeks on campus were overall not a positive experience for them. They did not cultivate any friends, faculty, or cohorts for a support group.

The fourth student in this group was a male, 18 years old. He gave no indications of being a high risk student. He completed the semester of classes, and in all of his conversations he presented himself as doing

average level work. His high school GPA was 2.66. His attention was divided between school, full time work, and leisure time. He failed to make any contacts on campus as far as making new friends, or meeting with faculty. He lived off campus and indicated that he regretted not being on campus, and not meeting new friends . He felt left out of the main stream, and left out of functions and events. His attitude could be described as merely going through the motions. His readiness for college or maturity level may have been lacking, which his mother suggested to the researcher during a call to the home. The need for an education may not have been evident to him, since he already was working full time, and his motivation was too low regarding the tasks that had to be done to succeed in college. None of this group enrolled spring term, while everyone else in the study continued their enrollment.

Analysis of Returning Students with GPAs Below 2.0: There were three students (12%) whose fall GPAs were under 2.0. A female student, 18 years old, enrolled full time, had difficulty with the level of academic instruction. Midway through the semester she was aware that her grades were not going to be adequate. She started inquiring about the Vo-Tech College (perhaps because her brother is there) about dental assisting training. Her high school GPA was 3.23, but her fall semester GPA was 1.90. She found the institution scary with too many people, registration confusing, and her experience with her advisor degrading. She didn't know what she was supposed to be doing. This student was living at home with her parents, who are paying for her college, and is very shy and unsure of her. She attended a self esteem workshop offered by the institution, but remained unwilling to talk to her professors, or to join study groups. She made no new friends and joined no organizations. This student changed at semester to the Vo -Tech college.

The second student, was a male, 18 years old, with a high school GPA of 3.04 indicating prior academic success. His fall GPA was 1.75. He lived at home with parents, who were paying for his college and even registered for him while he was in Europe. He liked the campus, was not receiving financial aid, and worked part time. He said he required only 5 hours of sleep. This student had several emotional family events early in the semester, which he admitted interfered with his concentration on studies. He had talked to some of his teachers and felt comfortable on campus. He admitted he needed to adjust his priorities and put school ahead of everything else. This student may need more maturity to produce needed effort for college. He returned the spring semester, however, though only registered for six hours.

The third student was a male, 20 years old, with a high school GPA of 2.40. His fall GPA was 1.33. He lived at home with parents, and his grandparents were paying for his education. His first experience with the institution went smoothly, but faculty relations could have been better. His journal writings indicated that he had difficulty understanding what was expected from him in his English course, but decided that the professor was prejudiced and failed to pursue any conversations to improve his writing. He worked part time in electronics, which was also his major. He made friends on campus, but had not joined any social clubs. He considered college "a real fun challenge" and said he liked it a lot. His interviews and journal writings showed an optimism about his performance that was not reflected in his grades. He, too, returned spring term with good intentions.

Overall, the high school GPAs did not indicate students would experience low academic achievement in college. However, none of these students were especially close to anyone on campus including friends, faculty, or staff. They all lived off campus, at home with parents, which may have contributed to their isolation from campus activity. They did not speak of learning a lot their first semester, nor did they seem to be hungry for academic improvement.

Analysis of Students with GPAs Above 3.5: One of the 4.0 students was an exceptional story. He was from Mexico, quit school in Mexico in the ninth grade, had to get his GED from this institution to enroll for college, supported a wife and child, and worked for a ballet troupe. He had a strong psychological readiness for college, and a love of learning. He was in school not only to get a degree to better himself, but more importantly to learn. His major was physics, and he had several catch-up math classes to take before he could begin his major course work. His wife had her degree, and was the major wage earner while he went to school. He felt comfortable with the physical campus, joined social groups, and talked to his professors about class work and additional ideas. He related well to others and received an anonymous scholarship which bothered him because he couldn't thank the individual personally. This student was extremely likeable and impressive.

The other 4.0 student was a 24 year old female, married, with a small child. She attended classes off campus at another town, Mountain Home Air Force Base. Her high school GPA was 2.46 She was motivated to get a degree, had support from her husband, and had a declared major. She had a built-in peer group in that all students lived on the Base and were either service men or women or their spouses. Talking to the faculty had not been as productive as she would have liked, and she planned to attend some classes at the main campus for more

interaction and better facilities. She felt she learned a lot the first semester, was looking forward to new classes, and showed the maturity necessary to be persistent.

The third student was a traditional-aged female from out of town. She was living off campus with friends from her home town, and acknowledged that she was not meeting or interacting with many students on campus. She worked part time so her social time was limited. Her perception of the institution was very negative. She had negative comments about almost every department, staff, class, professors, and facilities. This student viewed herself as a high achiever, thought every class was too elementary, and did not feel she received the treatment she deserved. She had gone from being the Salutatorian of her high school, to one of several thousand in the college freshmen class.

Summary of Qualitative Findings

The students who were the most successful, based on the highest GPAs, were more likely to exhibit academic readiness, or adequate learning skills, had the ability to manage time resources, financial resources, and showed motivation to succeed. If right out of high school, they typically lived on campus, were involved with campus activities, made new friends, and were comfortable with the campus facilities. For non-traditional students, who all lived off-campus, motivation and time management appeared to be the keys. They viewed their college experience as a positive one, were able to relate to others, had a strong interest in learning, and viewed themselves as making progress toward their degree. They spent time talking to faculty, or at least wished for more chances to talk to faculty.

Those students who were the least successful, based on the lowest GPAs at the end of fall semester or withdrawal, tended to fall into two distinct groups. One group consisted of women in their late 20s or early 30s with families who miscalculated the time and effort involved in schooling. In each case, the family commitment superceded the commitment to schooling. The other group consisted of recent high school graduates who all lived off-campus. None of these students engaged in contact with faculty. In fact, poor grades were taken as evidence that they could NOT talk to them. Their off-campus location resulted in decreased assimilation in campus activities. Two of this group recognized that they were not doing well and took steps to transfer to the vocational side of the institution. The other two seemed to not understand the extent of their academic difficulties and were more undecided regarding their educational goals.

Two of the students in this qualitative study were minorities. They experienced success partially due to a larger than average support group. They met with faculty early in their fall semester and often during the semester. Their conscious goal was to be recognized by the faculty as eager students. They made it a point to become familiar with the campus facility, they made many new friends, their college experience was positive, and they had an interest in learning.

We found that high school GPAs do not necessarily predict success in college. The students who dropped out of school had high school GPAs between 2.66 and 3.16. One had a GED. The three students who had Fall GPAs under 2.0 had high school GPAs ranging from 2.4 to 3.23. The top six students had high school GPAs ranging from 2.46 to 3.97 and one had a GED.

We also found that students seemed unable to make early accurate appraisals of their chances for success or even at times how they were doing academically. The women who dropped out early indicated they were motivated to attend school and had the support they needed, just like those who did well. Several students with low GPAs gave few signs during the interviews that they were having difficulties despite direct questions about their academic progress. While we cannot be sure, it appears that one student was putting the researcher in the same category as parents and telling the same story to both. The other remained the eternal optimist and thought that things would get better later.

Final Conclusions

Both studies confirmed that faculty contact is critical. In the quantitative study, first term GPA was related to faculty contact. The qualitative study confirmed that this was a variable that separated those who performed well and those who performed poorly. The qualitative study enriched the findings by revealing that those most in need of discussions with faculty may be the ones least likely to initiate a conversation. Faculty, therefore, may have to make more concerted efforts in this regard.

Both studies also showed that self-report is not an entirely accurate method of collecting data. The quantitative study showed that students who rated themselves highly on both academic and psychological readiness were more likely to leave the institution, not less. The qualitative study found that a totally accurate appraisal of academic performance through students' eyes may not be available, even well into the semester.

The quantitative study clearly showed that early academic success is critical to persistence. While some

indicators exist in the qualitative study that this will also be the case, better information will be available when students return next fall.

We have confirmed that we can learn some different things from qualitative and quantitative studies. In part, this may have been due to sampling differences in the two studies. It is also most certainly due to differences in the way complexities are handled in the two approaches. For example, the quantitative study found no effects for age or having children or working. The qualitative study, however, showed that older students can perform either very well or very poorly, depending upon a variety of other factors. This complex interaction evidently led to a "canceling out" of effects in the quantitative study. It has revealed to us how diverse our student body is, making generalizations about retention difficult. In the future, we will focus our studies at more targeted populations, continuing to use the tools of both qualitative and quantitative approaches.

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